

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Lee, Wook Application No.: Filed: Title: Improved 3D Velocity Modeling, with Calibration and Trend Fitting using Geostatistical Techniques, Particularly Advantageous for Curved-Ray Prestack Time Migration and Such Migration Followed by Prestack Depth Migration Attorney Docket No.: 50243	Art Unit: Examiner:
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Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

PRELIMINARY AMENDMENT

Response To Written Opinion Mailed 1/6/2005

REMARKS

Applicant respectively traverses the opinion of lack of novelty and/or inventive step of claims 22-35 or 22-25, depending on whether one refers to the "statement" or to the "citations and explanations" portions of the Written Opinion.

Applicant asserts that Docherty does not disclose how he arrives at any velocity model. Docherty discloses "visualization techniques" that help one visually assess the accuracy of whatever velocity model was utilized.

In particular, Docherty does not disclose (and the Written Opinion does not identify therein) calibrated velocity functions, being the product of a combination of geostatistical interpolation of at least one scale factor with a seismic (soft data) velocity function. Applicant does not find that page 4 column 2 lines 7-25 of Docherty teach or suggest applying scale factors to seismic data, much less the combination of a geostatistical interpolation of at least one scale factor with a velocity function.